# The Salters' Company

The Salters' Company was formed in medieval times to protect the interests of salt traders.

There are 110 livery companies in the City of London. They all started to represent the interest of a different trade.

Today the Salters' Company is a charity. They are able to do this charity work because of their historical work in the salt trade.

Why was salt so valuable in medieval times?

# Salt

Before the invention of canning and refrigeration salting was the most common  way to preserve food.  This made it valuable.

Salt tastes good so it is added to food even if does not need preserving . Small amounts of salt are essential to life but too much salt has been linked to heart disease.

Salt is a mineral composed of sodium chloride (NaCl).

# Preservation

- **The most important use for Salt before modern times was to preserve food.**
- **Bacteria and other organisms that spoil food and cause disease can be killed using salt.**
- **Bacteria need a food source and water to live and reproduce. Take one of these away and bacteria will not spoil the food.**
- **Salt dries food out as through a process called osmosis.**

# Where does salt come from?

Mining

Evaporated from sea water

# Making Salt Crystals

Salt crystals can be made from evaporating seawater which is salty. In this experiment you will make your own salt crystals by **evaporating** the water in a **saline solution.**

# Extension Activity

Research a timeline of salt production in the United Kingdom and add the most important salt producing sites to the outline map.

**Salt Crystals Experiment**

In this experiment students practice working scientifically by making salt crystals. They will control variables, observe and record results. The short power point provides context to the Salters' Company and the importance of salt.

This session has the following links to the KS2 National Curriculum:

**Science**

- Know that some materials will dissolve in liquid to form a solution, and describe how to recover a substance from a solution
- Use knowledge of solids, liquids and gases to decide how mixtures might be separated, including through filtering, sieving and evaporating
- Demonstrate that dissolving, mixing and changes of state are reversible changes
- Working scientifically

**Materials**

- Kettle or other method of boiling water
- Varieties of salt
- Varieties of water
- Clean clear container e.g. jam jar or petri dish
- Optional: Heat source such as Bunsen burner or candle

**Basic Method**

Stir salt into boiling hot water until no more salt will dissolve (crystals start to appear at the bottom of the container). This is a supersaturated salt solution. Place the solution in in clear, clean container and set aside. Over the course of hours and days salt crystal will form as the water evaporates. Alternatively, the process can be sped up placing it in heart proof vessel and heating with a Bunsen burner or candle.

**Variables**

The basic method can be adjusted by using different types of salt and water. Dive the class into 9 groups and each group is assigned a single container.

Variations of salt:

- iodized salt
- un-iodized salt

- sea salt.

Variations of water:

- tap water
- mineral water
- distilled water

**Recording and Evaluating Results**

Results are recorded every 24 hours for 5 days. Record results by having students draw the crystals and by writing descriptions of the crystals which include size, shape and colour.

After the five days the 9 groups of crystals can be compared. The expected result is that there will variety in the size and shape of the crystals. Students should be asked to identify which variables produce what results.

# Salt Production Sites in the UK